1-2010

Cultural Diversity, Immigration and Trade: A Study of Nine OECD Host Countries

Roger White
Franklin & Marshall College, rwhite1@whittier.edu

Bedassa Tadesse
University of Minnesota - Duluth, btadesse@d.umn.edu

JCIFBE (2010) ISSN: 1935-3553
Volume 3, Issue 1, pp. 75-102

CULTURAL DIVERSITY, IMMIGRATION AND TRADE: A STUDY OF NINE OECD HOST COUNTRIES

Roger White[1]* and Bedassa Tadesse[2]
[1]Department of Economics, Franklin and Marshall College
[2]Department of Economics, University of Minnesota – Duluth

ABSTRACT

Employing data from nine OECD countries and 67 trading partners for the years 1996-2001, we examine the inter-relationships between immigration, cultural diversity and trade. We find greater cultural differences between immigrants' host and home countries inhibit trade flows. However, immigrants exert pro-trade influences that partially offset the effect of cultural distance. We also find that greater cultural diversity within the immigrants' host countries is associated with the creation of trade between immigrants' host and home countries. The findings suggest that the ability of immigrants to influence their host's trade with their home countries depends, in part, on the characteristics of the host country relative to the home country.

JEL Classifications: F14, F15, F22.

Keywords: Bilateral Trade, Cultural Distance, Gravity, Immigrants.

1. INTRODUCTION

Pronounced cultural differences between trading partners can complicate interactions, hinder the development of rapport and trust and inhibit trade flows. That trade confers benefits to both exporting and importing economies underscores the importance of this relationship. We employ data on immigration and trade for nine OECD host countries and 67 immigrant home countries to consider a relationship between immigration, cultural distance, cultural diversity and trade between immigrants' host and home countries. Examining variation in the immigrant-trade relationship across these host countries as well as the potential influences of host country cultural diversity and cultural distance, we extend the

* Corresponding author: Email: roger.white@fandm.edu. Franklin and Marshall College, Department of Economics. 415 Harrisburg Pike, Lancaster, PA 17603 USA. Ph: (717) 291-3920. Fax: (717) 291-4369.

related literature, inform the public and political discussions of immigration and, potentially, provide information that benefits policy formulation.

Prior studies have reported pro-trade immigrant influences, with immigrants thought to increase trade through two primary channels. First, if immigrants arrive in the host country to find desired home country products or reasonable substitutes are unavailable, they may increase host country imports from their respective home countries. Immigrants' consumption may also expose native-born residents and immigrants from other countries who reside in the host country to the home country products. This may produce a consumption spillover effect that further increases the host country's imports from the immigrants' home countries. Immigrants may also possess knowledge of home country markets or of host country characteristics that, if successfully exploited, increases trade flows. Dunlevy (2006) labels this effect the "information bridge hypothesis". Greenaway et al. (2007) posit the effect is a combination of a "cultural bridge" and an "enforcement bridge". For example, immigrants' knowledge of home country customs and expected business practices may overcome information asymmetries associated with cultural differences. Connections to home country business networks may permit the transmission of information about business opportunities or the deterrence of opportunistic behavior through a form of reputation-enforcement (Rauch and Watson, 2002; Rauch and Trindade, 2002; and Rauch, 2001 and 1999). Bryant et al. (2004) liken the abilities of immigrants to reduce trade-related transaction costs by acting as trade-intermediaries to the influence of reductions in shipping costs attributable to technological improvements.

A closer look at Greenaway et al.'s (2007) description of the channels through which immigrants affect host-home country trade leads to three important questions that are relevant for social and economic policy formulation. First, does cultural difference between the host and home countries inhibit their bilateral trade flows? Second, if so, then do immigrants counter the effects of cultural differences? Third, does the degree of cultural diversity in an immigrants' host country affect the abilities of immigrants to offset any trade-inhibiting effects of cultural diifferences and, thus, to increase trade?

Gould (1994), examining US data, first reports evidence of an immigrant-trade link. Subsequent studies have identified positive influences of immigrants on trade for several other host countries.[1,2] In confirming an immigrant-trade relationship, these studies have employed a myriad of econometric specifications to explore variation in the immigrant-trade relationship across product types (e.g., different industries or sectors, various product types, and the degree to which products are homogeneous or differentiated) and home country cohorts (e.g., categorized based on relative economic and social development). Further, these studies have examined a variety of time periods and diverse sets of home countries. Given that the literature relating to the immigrant-trade relationship is quite varied and multifaceted,

[1] Bacarezza et al. (2006) for Bolivia, Combes et al. (2005) for France, Piperakis et al. (2003) for Greece, Hong and Santhapparaj (2006) for Malaysia, Bryant et al. (2004) for New Zealand, Faustino and Leitao (2008) for Portugal, Blanes (2003; 2006) and Blanes and Martin-Montaner (2006) for Spain, and Kandogen (2005) for Switzerland report pro-trade immigrant influences. Rauch and Trindade (2002) find that ethnic Chinese networks increase trade flows. Parsons (2005), considering the EU-15 as a singular host, reports positive effects of immigrants from Eastern Europe. Several studies report pro-trade immigrant effects on US state-level exports (Co et al., 2000; Herander and Saavedra, 2005; Bardhan and Guhathakurta, 2005; Bandyophadyay et al., 2006; Dunlevy, 2006; and Tadesse and White, 2007 and 2008a; White and Tadesse, 2008b; and White, 2009b). Blanes (2004), Faustino and Leitao (2008) and White (2008) report immigrants increase intra-industry trade for Spain, Portugal and the US, respectively.

[2] White and Tadesse (2009) provides a comprehensive review of the associated literature.

we proceed by restricting our attention to those studies that examine the host countries included in our data, use aggregate trade data or that emphasize the influence of cultural distance on trade.

Specifically considering the potential effect of cultural distance on US trade with 54 countries during the 1997-2004 period, White and Tadesse (2008a) employ data from the World Values Surveys (WVS) and the European Values Surveys (EVS) to construct a measure of US-home country cultural distance. Using both a composite measure of cultural distance and two underlying dimensions of cultural differences, separately, the authors report that greater cultural differences between the US and the immigrants' home countries acts to inhibit trade flows. Tadesse and White (2007) perform a similar analysis using US state-level exports, while Tadesse and White (2008a) consider the influence of cultural distance on US state-level exports at both the aggregate level and with trade values decomposed into cultural and non-cultural product groupings. These two studies examine exports to 75 countries during the year 2000 and conclude that cultural distance does in fact inhibit US state-level exports and that cultural products are affected to a greater extent.[3]

The work presented here is a complement to the analysis presented in Tadesse and White (2008b). The authors explore the influence of cultural distance on trade for the nine OECD countries examined in this chapter and report that greater cultural distance, as measured using the WVS and EVS data, has a consistently negative and economically significant influence on trade. This paper extends Tadesse and White (2008b) to emphasize the role of cultural diversity in affecting immigrants' abilities to influence trade and to determine whether immigrants' pro-trade effects act to counter the expected trade-inhibiting influence of cultural differences.

If a nation's culture is an amalgam of its population's shared habits and traditions, learned beliefs and customs, attitudes, norms and values, then cultural dissimilarity corresponds with host-home country social/institutional dissimilarity and/or information asymmetries and that immigrants may offset, in whole or in part, the expected trade-inhibiting effects of cultural differences. Further, we anticipate a positive relationship between immigrant-trade links and the diversity of a host country since more culturally diverse populations are likely more receptive to the introduction of home country products. This implies that cultural diversity corresponds with larger consumption spillover effects. Similarly, greater diversity within the host country may better enable immigrants to exercise their knowledge of and connections to their home countries; thus, increasing the probability that immigrants act as trade-intermediaries.

To address our research questions, we employ data on immigration and trade practices of 9 culturally and economically heterogeneous OECD host countries with 67 immigrant origin (i.e., home) countries during the years 1996-2001. We use data from the WVS and the EVS (Inglehart et al., 2004; Hagenaars et al., 2003) to calculate the cultural distances between immigrants' host and home countries. The cultural distance variable is a proxy for the extent to which immigrants' host countries are divergent (culturally) from their home countries. We

[3] Boisso and Ferrantino (1997) employ an index of linguistic distance to proxy for cultural differences and report greater differences inhibit trade. Dunlevy (2006) considers whether trading partners commonly use English or Spanish and finds a pro-trade common language effect. Employing the Geert Hofstede Cultural Dimensions for International Business (Hofstede, 1980), Linders et al. (2005) find cultural distance increases trade and suggest that cultural differences encourage trade as an alternative to establishing operations in culturally-distant locales.

calculate Simpson Index of Diversity values to estimate the cultural diversity of each host country's population during our reference period.

We emulate prior studies of the immigrant-trade link by employing a variant of the standard gravity equation. With considerable variation across host countries, we find immigrants generally increase host country imports from and exports to their respective home countries. Further, cultural differences between trading partners inhibit host country imports and exports, with imports seemingly affected to a greater extent. We also observe that immigrants increase trade flows, perhaps by exploiting superior information regarding host country markets (relative to home country counterparts) and home country markets (relative to host country counterparts) and by acting as conduits that bridge host-home country cultural differences. This finding implies that immigrants play greater roles in facilitating international trade than has been discussed in the literature: fully or partially offsetting the influences of the lack of trust and commitments that may correspond with greater cultural differences between trading partners.

Greater cultural diversity within the host country population is found to be positively correlated with the proportional influences of immigrants on trade. Accordingly, among the host countries included in our study, the magnitudes of immigrant-trade links for Denmark, the Netherlands and Norway tend to be below-average when compared to the remaining host economies in our sample. Each of these countries has fewer immigrants as a share of their populations and the Simpson Index of Diversity shows that these host countries' populations are less culturally diverse than are the other host economies in our study. To the contrary, estimated immigrant-trade links are significantly larger for Australia, Canada, Germany, Sweden and the US. In this later group of host countries, immigrants comprise greater shares of the populations and these countries' populations are more diverse. However, the relationship between the cultural diversity of host country populations and the immigrant-trade link is not entirely straightforward. Estimated links for Italy, for example, are often relatively high in magnitude although the Italian population is neither large nor particularly diverse.

The paper proceeds as follows. Section 2 presents the empirical specification and details both the data and variable construction. Estimation results are discussed in Section 3, and Section 4 concludes.

2. INTUITION AND EMPIRICAL SPECIFICATION

The literature suggests that variation across home countries should be expected in terms of the existence and magnitudes of immigrant-trade links. Additionally, as immigrant-trade links are influenced by host-home country (dis)similarities and historic connections, it seems reasonable to expect variation in the immigrant-trade relationship across host countries. To consider this possibility, we emulate prior studies of the immigrant-trade relationship and employ a variation of the standard gravity equation.[4] The gravity equation posits that trade

[4] Tinbergen (1962) first applies the gravity specification to trade and more recent research has established theoretical foundations for the model. See, for example, Anderson and van Wincoop (2003) and Feenstra et al. (2001).

between two countries i and j during year t $\left(\tilde{T}_{ijt}\right)$ increases with the countries' combined economic mass $\left(Y_{it}Y_{jt}\right)$ and decreases with geodesic distance $\left(GD_{ij}\right)$. Higher home country GDP $\left(Y_{jt}\right)$ implies greater potential export markets for host country i to serve and an increased probability that the host country imports from home country j. Similarly, higher host country GDP $\left(Y_{it}\right)$ signals an increased capacity to both export and import. Geodesic distance between the capital cities of host country i and home country j is a proxy for transport costs. We also include: $\left(\left(\frac{IM_{ij}}{CD_{ij}}\right)^{\delta}, X_{ij}^{\gamma}\right)$, where $\frac{IM_{ij}}{CD_{ij}}$ is the ratio of the immigrant stock from country j residing in country i and the cultural distance between each host-home country pairing, and $\mathbf{X}_{ij}^{\phi}$ is a vector containing additional trade-facilitating/inhibiting factors. Equation (1) thus illustrates.

$$\tilde{T}_{ij} = \alpha\left(\frac{Y_i^{\beta_1}Y_j^{\beta_2}}{GD_{ij}^{\gamma_1}}\left(\frac{IM_{ij}}{CD_{ij}}\right)^{\delta}\mathbf{X}_{ij}^{\phi}\right) \tag{1}$$

The equation postulates that immigrants and cultural distance exert positive and negative influences, respectively, on trade, and that the extent to which cultural distance affects trade may be related to the stock of immigrants from country j living in country i. The equation also predicts strictly positive realizations of trade values. Trade data often contain cases wherein values are equal to zero. Following Eaton and Tamura (1994) and Head and Ries (1998), we modify equation (1) to permit realization of zero trade values; thus, yielding equation (2).

$$\tilde{T}_{ij} = \alpha\left(\frac{Y_i^{\beta_1}Y_j^{\beta_2}}{GD_{ij}^{\gamma_1}}\left(\frac{IM_{ij}}{CD_{ij}}\right)^{\delta}\mathbf{X}_{ij}^{\phi}\exp^{(\varepsilon_{ij}-\eta)}\right) \tag{2}$$

In equation (2), η is a fixed amount of trade that we subtract from the level predicted by equation (1) so that when latent trade values are negative, observed imports and/or exports will be zero. Thus, the observed data on country j's imports from or exports to country i can be described as $T_{ij} = \max\left[\tilde{T}_{ij}, 0\right]$. Substituting this identity, expanding the vector X_{ij}^{ϕ}, allowing α to be the constant of proportionality, taking natural logarithms of the continuous variables on both sides of the resulting equation, and assuming that ε_{ij} is an identically and independently distributed error term results in our estimation equation. To capture potential variation in the influences of immigrants across host countries, we include a series of terms that interact the immigrant stock, cultural distance and host country dummy variables.

$$\ln(T_{ijt}+\eta)=\alpha_0+\delta_1\ln IM_{ijt}+\delta_2\ln CD_{ij}+\delta_I(\ln IM_{ijt}\times\ln CD_{ij}\times HOST_j)$$
$$+\delta_H HOST_j+\beta_1 GDP_j+\gamma_1\ln GD_{ij}+\phi_1\Delta\ln XRATE_{ijt}+\phi_2\ln OPEN_{ij}$$
$$+\phi_3\ln POP_{jt}+\phi_4\ln REM_{jt}+\phi_5 BORDER_{ij}+\phi_6 COMLANG_{ij}+\phi_7 FTA_{ij}$$
$$+\phi_8 OPEC_{jt}+\phi_9 SEAPORT_j+\beta_\Omega\Omega_t+\varepsilon_{ijt} \quad (3)$$

Our vector of dependent variable includes aggregate imports and exports as well as disaggregated (manufacturing and non-manufacturing sectors and 1-digit SITC sectors) import and export values, each of which is regressed on the set of explanatory variables. Trade data are from the SourceOECD Database. As i represents each host country, the corresponding GDP values do not vary across trading partners; the effects are thus subsumed into the coefficients on the host country-specific and time dummy variables.

The immigrant stock from home country j residing in host country i during year t, IM_{ijt}, controls for immigrants' effects on host-home country trade. The corresponding coefficient, $\hat{\delta}_1$, partially captures the influence of immigrants in that the coefficient represents a "base effect" that applies equally across host-home country pairs. The coefficients on the CD_{ij} variables represent the effects of cultural distance, while coefficients on the $HOST_j$ variables capture variation in trade flows, all else equal, across host countries. We expect coefficients on the IM_{ijt} and CD_{ij} variables to be positive and negative, respectively. We also include a term which interacts the IM_{ijt}, CD_{ij} and $HOST_j$ variables. Thus, the sum of the coefficients on the immigrant stock variable and the corresponding interaction term, $\hat{\delta}_1+\hat{\delta}_I$, give the influence of immigrants on trade. Immigrant stock data are from national statistic agencies and have been compiled by the Migration Policy Institute (2007).[5] Data for six of the nine host countries in our data set are complete in that the statistical agency provides annual values for the years 1996-2001.[6]

Annual changes in the host-home country exchange rate ($\Delta\ln XRATE_{ijt}$), given as home country currency units per host country currency unit, represents terms of trade effects. An increase in the variable signals a depreciation of the home country's currency vis-à-vis the host country's currency and thus an expected increase (decrease) in host country imports (exports). A measure of trade openness ($OPEN_{jt}$) is the sum of imports and exports divided by GDP (Head and Ries, 1998). The population of country j (POP_{jt}) serves to proxy for market size. To control for each home country's relative lack of outside trading opportunities, we follow Wagner, Head and Ries (2002) and measure economic remoteness as

[5] Data for Australia, Canada, Denmark, The Netherlands, Norway, Sweden and the US are foreign-born populations by country of birth. Data for Germany and Italy are foreign-born populations by country of nationality.

[6] The appendix provides a description of the data and methodology employed to estimate immigrant stock values.

$REM_{jt} = 1/\sum_{k=1}^{K}\left[\left(Y_{kt}/Y_{wt}\right)/D_{jk}\right]$, where Y_{wt} is gross global product and k identifies potential trading partners for country j other than the host country i.[7] All monetary values, trade flows and otherwise, have been normalized to 1995 US dollars using GDP deflators. Unless noted, data for explanatory variables are from the World Bank (2006).

Several dummy variables are also included in our estimation equation. Controlling for the expected increased trade attributable with corresponding reductions in transportation costs, $BORDER_{ij}$ is equal to one if the host and home countries are adjacent. As common language has been identified as an important determinant of trade flows in gravity specifications (Dunlevy, 2006; Hutchinson, 2002), $COMLANG_{ij}$ is equal to one if the predominant language used in the host country is also commonly used in country j (CIA, 2006). Capturing the effects of trade agreements, FTA_{ij} is equal to one if country j is party to an agreement with country i during year t. $OPEC_j$ controls for imports of petroleum and related products and is equal to one if country j was an OPEC member for six or more months in year t. Capturing related geographic effects on trade, $SEAPORT_{jt}$ is equal to one if country j is not landlocked. Finally, a vector of time dummies, Ω_t, absorbs macroeconomic fluctuations and time-variant trade policy decisions. Table 1 presents descriptive statistics for the full sample and each host country.

Comparing descriptive statistics for host countries to mean values of the full sample provides interesting insights on the diversity of host countries examined. Considering each host country's aggregate imports from and exports to immigrants' home countries reveals Canada and Italy as typical host countries with average values near those found for the full sample, while corresponding values for the US and Germany are significantly higher and values for Australia, Denmark and Norway significantly lower. With regard to cultural differences, Norway's cultural distance from the immigrants' home countries considered is typical, Italy is the most culturally-similar to the home countries in our data and Sweden is the most culturally-dissimilar. In terms of the size of the immigrant population, Australia, Canada and Germany can be considered as typical host countries with number of immigrants close to the average found for all countries in our data, while the immigrant populations in the US and Norway lay on opposite ends, with that of the US being the largest and that of Norway being the lowest. Given such heterogeneity in our host nations, we believe that estimation of the proportional effects of immigrants and cultural differences on trade provides a more accurate portrait of the immigrant-trade links to date.

[7] Internal distance, when k=j, is derived as $0.4\times\sqrt{Land\ Mass_j}$ (Head and Mayer, 2000).

Table 1. Descriptive Statistics

Variable	All Hosts	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
Aggregate Exports$_{ijt}$	2,846,355	600,654***	3,064,109	585,827***	6,651,118***	2,929,166	2,062,156**	655,787***	1,060,742***	8,067,804***
	(11,516,076)	(1,606,299)	(21,953,655)	(1,368,579)	(11,630,257)	(6,181,892)	(5,722,386)	(1,568,748)	(1,919,262)	(20,963,739)
Manufactured Exports$_{ijt}$	2, 373,484	314,973***	2,247 306	407,154***	6,163,385***	2,670,057	1,427,504***	221,429***	941,041***	7,019,242***
	(9,685,055)	(770,635)	(16,866,301)	(959,798)	(10,768,369)	(5,574,322)	(3,623,542)	(482,451)	(1,670,911)	(18,627,374)
Non-Manufactured Exports$_{ijt}$	472,863	285,681***	816,843	178,673***	487,733	259,109***	634,652	434,358	117,701***	1,048,455***
	(2,181,436)	(939,424)	(5,142,456)	(426,613)	(1,017,709)	(619,761)	(2,160,012)	(1,169,514)	(268,817)	(2,685,990)
Aggregate Imports$_{ijt}$	3,043,045	707,249***	2,667,156	577,183***	5,760,861***	2,679,597	1,925,247***	449,139***	867,773***	11,818,257***
	(12,303,484)	(1,864,083)	(15,264,857)	(1,363,921)	(9,615,832)	(5,814,895)	(4,369,482)	(944,642)	(1,900,474)	(29,514,658)
Manufactured Imports$_{ijt}$	2,553,470	639,539***	2,350,911	464,913***	4,773,483***	2,140,572	1,490,492***	376,801***	721,960***	10,077,052***
	(10,743,097)	(1,782,487)	(13,816,945)	(1,156,805)	(8,328,884)	(4,956,609)	(3,609,111)	(824,098)	(1,657,528)	(25,659,622)
Non-Manufactured Imports$_{ijt}$	489,580	67,709***	316,021**	112,269***	987,378***	539,025	434,755	72,337***	145,813***	1,741,481***
	(2,077,562)	(172,680)	(1,485,276)	(247,036)	(1,912,395)	(981,210)	(880,029)	(154,674)	(348,530)	(5,358,722)
Cultural Distance$_{ij}$	1.4645	1.3162***	1.3461***	1.7492***	1.3504***	0.9979***	1.551**	1.5030	2.0617***	1.3055***
	(0.7022)	(0.5877)	(0.5561)	(0.7535)	(0.6208)	(0.4646)	(0.7256)	(0.72)	(0.7686)	(0.4983)
Immigrants$_{ijt}$	60,715	48,521	59,749	2,693***	83,170	12,520***	13,370***	1,510***	10,445***	314,454***
	(328,645.9)	(137,592.2)	(105,116.8)	(4,968.08)	(260,396.5)	(22,072.93)	(34,134.62)	(3,926.5)	(27,574.15)	(891,510.1)
Geodesic Distance$_{ij}$ (kilometers)	7,073,57	13,744.87***	7,917.84***	4,960.51***	4,869.25***	8,735.95***	4,970.56***	5,142.00***	5,093.30***	8,227.89***
	(4,921.81)	(3,470.61)	(3,148.05)	(4,524.67)	(4,590.94)	(3,766.16)	(4,557.85)	(4,389.39)	(4,419.64)	(3,216.87)

Variable	All Hosts	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
GDP_{jt}	362,039.96	377,963.00	374,928.02	381,824.09	359,116.23	369,814.26	379,151.12	381,709.84	380,836.13	260,035.15***
	(1,096,381)	(1,146,323)	(1,147,248)	(1,147,220)	(1,136,473)	(1,145,425)	(1,147,571)	(1,147,244)	(1,147,400)	(592,571)
$Population_{jt}$	71,387.40	71,935.06	71,926.72	72,296.23	71,164.06	71,525.55	72,142.10	72,308.97	72,243.90	68,284.84
	(190,910.49)	(191,279.93)	(191,529.13)	(191,424.16)	(191,590.22)	(191,587.39)	(191,473.94)	(191,419.66)	(191,442.02)	(189,924.10)
$Openness_{jt}$	0.7422	0.7457	0.7402	0.7413	0.7433	0.7445	0.7342	0.741	0.7405	0.7487
	(0.409)	(0.4091)	(0.4107)	(0.4107)	(0.4103)	(0.4099)	(0.4066)	(0.4108)	(0.4107)	(0.4061)
$Remoteness_{jt}$	25,705.47	25,671.99	25,708.94	25,691.11	25,728.81	25,719.44	25,715.61	25,681.55	25,701.65	25,730.15
	(45,322.26)	(45,389.6)	(45,370.9)	(45,380.18)	(45,359.99)	(45,365.2)	(45,367.3)	(45,384.97)	(45,374.75)	(45,359.23)
Δ ln Exchange $Rate_{ijt}$	0.0556	0.0460	0.0865***	0.0400	0.0356*	0.0590	0.0347**	0.0477	0.0443	0.1069***
	(0.2039)	(0.2136)	(0.1993)	(0.2014)	(0.2012)	(0.2048)	(0.2012)	(0.1988)	(0.2071)	(0.1969)
Common $Language_{ij}$	0.2255	0.4179***	0.3881***	0.4925***	0.1493***	0.1642***	0.0299***	0.00***	0.00***	0.3881***
	(0.418)	(0.4938)	(0.4879)	(0.5006)	(0.3568)	(0.3709)	(0.1704)	(0.00)	(0.00)	(0.4879)
$Adjacency_{ij}$	0.0381	0.00***	0.0149***	0.0149***	0.1194***	0.0597*	0.0299	0.0448	0.0299	0.0299
	(0.1916)	(0.00)	(0.1214)	(0.1214)	(0.3247)	(0.2372)	(0.1704)	(0.2071)	(0.1704)	(0.1704)
$OPEC_j$	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597
	(0.237)	(0.2372)	(0.2372)	(0.2372)	(0.2372)	(0.2372)	(0.2372)	(0.2372)	(0.2372)	(0.2372)
$Seaport_j$	0.8209	0.8209	0.8209	0.8209	0.8209	0.8209	0.8209	0.8209	0.8209	0.8209
	(0.3835)	(0.3839)	(0.3839)	(0.3839)	(0.3839)	(0.3839)	(0.3839)	(0.3839)	(0.3839)	(0.3839)

Sample sizes for individual host countries equal 402 observations. The "all hosts" sample is equal to 3,618 observations. Population and trade values in 1,000s. GDP values in 100,000s. All monetary values are in 1995 US dollars. "***", "**" and "*" denote statistical significance from the "all hosts" mean at the 1%, 5% and 10% levels, respectively.

To calculate our measure of cultural distance, we follow Tadesse and White (2007, 2008a, 2008b) and White and Tadesse (2008a) and use data from the WVS and the EVS (Inglehart et al., 2004; Hagenaars et al., 2003). The surveys provide data from representative national samples that pertain to a broad and varying set of topics that include economics, politics, family values, religion, sexual behavior, gender roles, communal identities, civic engagement, ethical concerns, environmental protection, and scientific/technological progress (Inglehart et al., 2004). Factor analysis is used to classify respondents along two dimensions of culture: Traditional authority vs. Secular-Rational authority (TSR) and Survival values vs. Self-Expression values (SSE) (Inglehart et al., 2004).[8] We derive average TSR and SSE values for each nation and then derive the cultural distance between each host-home country pair as $CD_{ij} = \sqrt{\left(\overline{TSR}_j - \overline{TSR}_i\right)^2 + \left(\overline{SSE}_j - \overline{SSE}_i\right)^2}$.[9] Table 2 presents the corresponding cultural distances between all host-home country pairs in our data, while Figure 1 illustrates differences across TSR and SSE dimensions and cultural distances between several host-home country pairs.

The TSR dimension of culture reflects a contrast between societies in which deference to the authority of a God, a nation or the family is viewed as important or as an expectation (i.e., Traditional authority) and those societies in which the individual and self-expression are stressed (i.e., Secular-rational authority). Members of such societies view large families and large numbers of children as positive achievements. Divorce, abortion, euthanasia and suicide, are viewed in a negative light. The emphasis placed on national pride and respect for authority in traditional societies is characterized by obedience to traditional/religious authority, adherence to family/communal obligations, and norms of sharing. That said, individuals in traditional societies rarely discuss politics and are seemingly passive in their acceptance of national authority. This may follow from a pervasive social emphasis on conformity. Emblematic of this is an adoption of absolute standards regarding what is good and what is evil. Members of secular-rational societies, on the other hand, tend to hold opposing views on these topics.

The SSE dimension of culture reflects differences between societies that emphasize hard work and self-denial (i.e., Survival values) and those that place greater emphasis on quality of life issues, such as women's emancipation and equal status for racial and sexual minorities (i.e., Self-expression values). Societies in which individuals focus more on survival tend to emphasize economic and physical security more than autonomy. The uncertainty surrounding economic and physical well-being manifests more generally as members of such societies find foreigners and outsiders, ethnic diversity and cultural change to be threatening. Societies in which self-expression values are emphasized tend to hold opposing preferences from individuals in societies that emphasize survival.

[8] Although the WVS/EVS provides data for 81 countries, incomplete data restricts our analysis to 68 nations.

[9] On average, the Values Surveys provide TSR and SSE values for 1,190 residents of each nation in our sample. Mean values are un-weighted arithmetic averages.

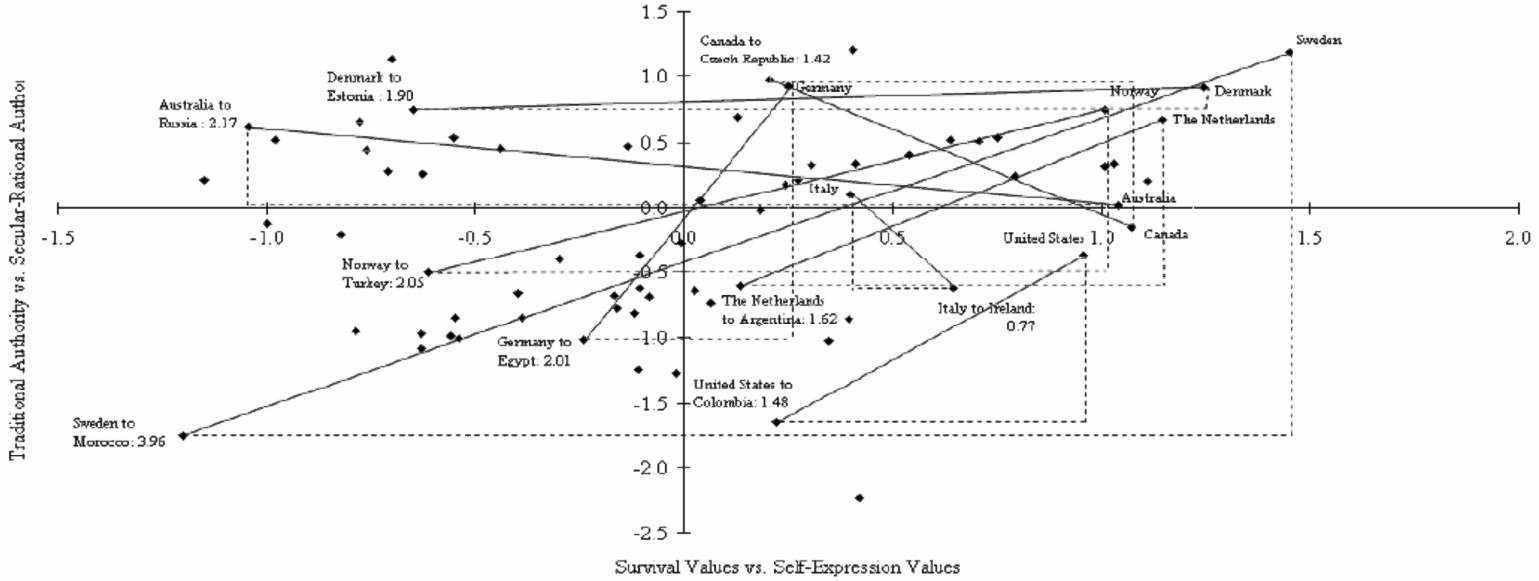

Figure 1. Cultural Distances, Select Host-Home Country Pairs.

Table 2. Host-Home Country Cultural Distances

Host:	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
Albania	1.58	1.61	2.02	1.24	0.94	1.82	1.73	2.33	1.54
Algeria	1.89	1.83	2.63	2.09	1.45	2.38	2.34	2.97	1.64
Argentina	1.09	1.04	1.88	1.54	0.75	1.62	1.61	2.22	0.85
Armenia	1.77	1.83	2.06	1.16	1.12	1.90	1.78	2.35	1.79
Australia	0.00	0.16	0.93	1.21	0.65	0.67	0.74	1.25	0.39
Austria	0.34	0.48	0.81	0.88	0.42	0.56	0.55	1.16	0.63
Azerbaijan	1.87	1.89	2.35	1.56	1.26	2.15	2.07	2.67	1.79
Bangladesh	1.80	1.76	2.51	1.95	1.34	2.27	2.23	2.85	1.58
Belgium	0.63	0.77	0.87	0.60	0.33	0.66	0.58	1.21	0.88
Brazil	1.42	1.36	2.20	1.78	1.05	1.95	1.92	2.54	1.16
Bulgaria	1.93	2.01	2.04	1.06	1.30	1.92	1.79	2.29	2.01
Canada	0.16	0.00	1.08	1.36	0.72	0.82	0.90	1.39	0.25
Chile	1.21	1.16	1.98	1.59	0.83	1.73	1.70	2.32	0.97
China	2.07	2.18	1.96	0.97	1.50	1.90	1.75	2.15	2.23
Colombia	1.85	1.73	2.76	2.58	1.76	2.50	2.53	3.10	1.48
Croatia	1.00	1.05	1.48	0.90	0.36	1.27	1.19	1.81	1.01
Czech Rep.	1.27	1.42	1.04	0.06	0.89	0.99	0.83	1.27	1.54
Denmark	0.93	1.08	0.00	1.00	1.18	0.26	0.29	0.34	1.32
Dominican Rep.	1.23	1.16	2.03	1.67	0.90	1.77	1.76	2.37	0.96
Egypt	1.64	1.57	2.44	2.01	1.28	2.18	2.16	2.78	1.36
El Salvador	2.33	2.18	3.25	3.17	2.33	2.99	3.04	3.57	1.94
Estonia	1.84	1.94	1.90	0.92	1.23	1.80	1.66	2.15	1.96
Finland	0.60	0.75	0.68	0.62	0.51	0.47	0.39	1.01	0.91
France	0.71	0.82	1.02	0.62	0.23	0.81	0.73	1.35	0.89
Germany	1.21	1.36	1.00	0.00	0.84	0.93	0.78	1.23	1.48
Greece	0.80	0.90	1.11	0.61	0.24	0.91	0.83	1.44	0.95
Hungary	1.69	1.75	1.98	1.10	1.04	1.82	1.71	2.28	1.71
Iceland	0.30	0.47	0.65	0.98	0.65	0.38	0.44	0.99	0.69
India	1.09	1.08	1.73	1.24	0.55	1.49	1.44	2.07	0.97
Indonesia	1.59	1.56	2.28	1.72	1.10	2.04	1.99	2.62	1.39
Ireland	0.75	0.64	1.65	1.60	0.77	1.39	1.42	1.99	0.40
Israel	0.79	0.87	1.20	0.72	0.16	0.99	0.91	1.53	0.90
Italy	0.65	0.72	1.18	0.84	0.00	0.94	0.89	1.52	0.73
Japan	1.35	1.51	0.89	0.31	1.10	0.91	0.76	1.05	1.67
Jordan	2.00	1.94	2.74	2.20	1.57	2.50	2.46	3.09	1.74
Korea (Rep.)	1.55	1.63	1.75	0.84	0.91	1.60	1.48	2.03	1.62
Latvia	1.85	1.92	2.06	1.13	1.20	1.92	1.80	2.34	1.90
Luxembourg	0.64	0.79	0.73	0.57	0.47	0.53	0.44	1.06	0.93
Macedonia	2.20	2.25	2.50	1.58	1.55	2.34	2.23	2.78	2.18
Mexico	1.08	0.98	1.97	1.80	0.96	1.70	1.72	2.31	0.75
Morocco	2.85	2.78	3.62	3.05	2.45	3.37	3.34	3.96	2.56

Table 2. Continued

Host:	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
Netherlands	0.67	0.82	0.26	0.93	0.94	0.00	0.16	0.60	1.06
New Zealand	0.32	0.48	0.62	0.98	0.67	0.36	0.42	0.96	0.71
Nigeria	1.66	1.56	2.52	2.21	1.43	2.26	2.26	2.87	1.33
Norway	0.74	0.90	0.29	0.78	0.89	0.16	0.00	0.63	1.12
Pakistan	1.94	1.89	2.66	2.10	1.48	2.42	2.38	3.00	1.70
Peru	1.44	1.38	2.20	1.76	1.04	1.95	1.92	2.54	1.19
Philippines	1.39	1.35	2.13	1.66	0.96	1.88	1.85	2.47	1.16
Poland	1.40	1.39	2.03	1.44	0.86	1.80	1.74	2.37	1.26
Portugal	1.21	1.20	1.87	1.35	0.69	1.63	1.58	2.21	1.06
Romania	2.04	2.07	2.47	1.63	1.41	2.29	2.19	2.78	1.97
Russian Fed.	2.17	2.25	2.31	1.33	1.53	2.19	2.06	2.56	2.23
Slovak Rep.	1.26	1.36	1.45	0.60	0.65	1.30	1.18	1.75	1.38
Slovenia	1.14	1.27	1.14	0.27	0.65	1.02	0.88	1.41	1.35
South Africa	1.33	1.28	2.09	1.66	0.93	1.84	1.81	2.43	1.09
Spain	0.81	0.89	1.24	0.75	0.17	1.03	0.95	1.58	0.90
Sweden	1.25	1.39	0.34	1.23	1.52	0.60	0.63	0.00	1.64
Switzerland	0.60	0.75	0.63	0.64	0.56	0.42	0.34	0.96	0.93
Tanzania	1.70	1.61	2.55	2.21	1.44	2.29	2.29	2.89	1.38
Turkey	1.73	1.72	2.34	1.68	1.18	2.12	2.05	2.67	1.57
Uganda	1.67	1.62	2.41	1.89	1.24	2.16	2.13	2.75	1.43
Ukraine	2.08	2.15	2.26	1.30	1.44	2.13	2.00	2.53	2.13
UK	0.20	0.35	0.73	1.13	0.72	0.47	0.56	1.05	0.59
USA	0.39	0.25	1.32	1.48	0.73	1.06	1.12	1.64	0.00
Uruguay	0.86	0.90	1.42	0.95	0.25	1.19	1.13	1.76	0.85
Venezuela	1.25	1.14	2.14	1.96	1.13	1.88	1.90	2.48	0.90
Vietnam	1.31	1.27	2.05	1.60	0.88	1.80	1.77	2.39	1.09
Zimbabwe	2.06	2.02	2.76	2.15	1.58	2.52	2.47	3.10	1.84

The characteristics represented by the *TSR* and *SSE* dimensions correspond with the channels through which immigrants influence trade. The emphasis on family and religion and associated adherence to family/communal obligations and norms of sharing suggests that, in the absence of formal contracting or access to a well-functioning judiciary or acceptance/adherence to the rule of law, the importance of business and social networks would be magnified. Repeated interaction with members of business and social networks would build trust since subsequent interaction is viewed as representative of commitment and reciprocity of trust and respect would be expected. It is reasonable to expect less trade will take place when functioning trade channels and formal contracting are weak or non-existent. In such instances, immigrants have a positive role to play as trade-intermediaries.

Uncertainty relating to survival-orientation may increase the value of immigrants' connections in terms of decreasing transactions costs and prove more effective with respect to increasing trade flows. Similarly, that foreigners and outsiders are viewed as threats is another example of the basis for which immigrants' network connections may be useful in increasing trade flows. The transplanted home bias effect can result from product differentiation, variation in output mix or relative efficiencies in production across host-home country

pairings. As mentioned, immigrants would essentially fill voids – aiding in the matching of potential buyers and sellers, conveying information about profitable trading opportunities or about potential parties to transactions, or otherwise – and, in doing so, facilitating transactions.

3. ESTIMATION RESULTS/DISCUSSION

Following Ranjan and Tobias (2005), Eaton and Tamura (1994) and Head and Ries (1998), we estimate equation (3) using the Tobit technique.[10] Since we have the parameter η, the resulting coefficients are not true elasticities. However, as the values of η, relative to the mean values of corresponding dependent variable measures, are quite small, we can heuristically interpret the coefficients as elasticities. Table 3 presents results obtained when aggregate exports and imports, as well as manufactured and non-manufactured goods exports and imports, are employed as dependent variables.[11] Focusing first on the immigrant stock variables, we find positive and significant coefficients across all estimations. Considered in conjunction with the coefficient on the variable that interacts the immigrant stock, cultural distance and host country dummy variables, we find strong evidence of pro-trade immigrant effects; however, the magnitudes of the effects vary considerably across host countries. For example, the proportional immigrant effect on aggregate imports is largest for the US (0.2968), Canada (0.2727) and Australia (0.2714) and is smallest for Denmark (0.124) and Norway (0.1242). A similar pattern emerges when aggregate exports are considered: Australia (0.3544), Germany (0.2534) and Italy (0.2443) are estimated to have the largest proportional effects, while Denmark (0.1195) has the smallest; the immigrant-export effect for Norway is not significantly different from zero.

With respect to the cultural distance variables, we find negative coefficients in all estimations, although significance is lacking with respect to aggregate exports and exports of manufactured goods. From Table 1, we see that host countries which are relatively more culturally-distant from the home countries included in this data (i.e., Denmark, the Netherlands, Norway and Sweden) also tend to host fewer immigrants relative to host countries that are, on average, less culturally-distant (i.e., Australia, Canada, Germany, Italy and the US). In fact, Denmark and Norway have by far the fewest immigrants among the host countries included in this data set and, with the exception of Sweden, are more culturally-distant from the home countries in the data than all other host countries. Thus, the observed variation in immigrant-trade links across aggregate export and import measures may reflect the relative inability of immigrants who reside in more culturally-distant host countries to overcome the trade-inhibiting effects of the relatively larger cultural differences between their home and host countries.

The remaining coefficients in Table 3 conform to expectations. Coefficients on the variables indicating changes in host-home country exchange rates are positive and negative with respect to imports and exports, respectively, and are generally significant,. Greater host-home country geodesic distance, implying higher transport costs, corresponds with reduced

[10] We also provide similar estimates derived by employing random effects GLS approach as a robustness check.
[11] The full set of estimation results is available upon request.

trade levels. Also, as expected, higher home country GDP corresponds to both greater host country exports and imports. Likewise, home countries that are relatively more open to trade tend to trade more with the host countries in our sample. Coefficients on the home country population variables are positive and significant in all estimations but one. Intuitively, this means that larger populations imply larger markets for host country exports to serve and, perhaps, a greater ability of the home countries to export to the host countries. Home country economic remoteness is found, in many instances, to negatively affect trade with the host country. Estimated coefficients on the dummy variables suggest that adjacency, commonality of language, free trade agreements and having coastal access all facilitate trade and that, with the exception of trade in non-manufactured goods, the nine host countries tend to trade relatively less with home countries that are members of OPEC.

To further examine variation in immigrant-trade links across host countries, we estimate equation (2) while employing disaggregated measures of trade – imports and exports of manufactured and non-manufactured products and 1-digit SITC sector values of imports and exports – as dependent variables. The resulting proportional immigrant effects on host country imports and exports are presented in Tables 4 and 5, respectively. For most host countries and measures of trade, estimated proportional immigrant effects are positive and significant; however, variation is again noted across host economies. Column (a) of Table 3 reports average immigrant effects and corresponding standard deviations. Immigrant effects that are greater in magnitude than the corresponding average effect are noted by bold typeface.

Comparing magnitudes of immigrants' effects on aggregate, manufactured and non-manufactured goods imports, separately, across the host countries (the first three trade measures presented in Table 4), we see above-average immigrant effects for Australia, Canada, Germany, the Netherlands and the US. Yet, only effects reported for the US (aggregate imports (0.2968) and manufactured goods imports (0.3688)) and Canada (manufactured goods imports (0.3302)) are more than one standard deviation above the associated mean effects. The corresponding effects (aggregate, manufactured and non-manufactured goods imports) for Denmark and Norway fall below the relevant mean values, as do estimated effects for aggregate and manufactured goods imports for Italy and Sweden. In fact, the estimated effects for Norway, while positive and significant, are more than one standard deviation below the mean effect. Similarly, for Denmark, the estimated effect of immigrants on aggregate imports and imports of non-manufactured products lies below the mean effect by are more than one standard deviation.

A similar pattern also emerges when we compare the estimated proportional effects of immigrants on host country exports. Results presented for the first three trade measures in Table 5 show that proportional immigrant effects for Australia, Germany and the US are greater in magnitude as compared to the mean effect. Likewise, for Italy and Sweden, the corresponding effect of immigrants on aggregate and manufactured goods exports is greater than the mean effect. Unlike the results presented in Table 4 for imports, here only the effects estimated for Australia (0.3544, 0.3287 and 0.4046 for aggregate, manufactured and non-manufactured goods exports, respectively) and the US (0.3676 for non-manufactured goods exports) are greater than one standard deviation above the relevant mean.

Table 3. Aggregate, Manufacturing and Non-Manufacturing Imports and Exports - Tobit Coefficients

Dep. Variable:	ln $Imports_{ijt}$	ln Manuf. $Imports_{ijt}$	ln Non-Manuf. $Imports_{ijt}$	ln $Exports_{ijt}$	ln Manuf. $Exports_{ijt}$	ln Non-Manuf. $Exports_{ijt}$
	(a)	(b)	(c)	(d)	(e)	(f)
ln $Immigrants_{ijt}$	0.2107***	0.222***	0.2758***	0.2443***	0.2673***	0.1454***
	(0.0258)	(0.0275)	(0.0306)	(0.0221)	(0.0219)	(0.0257)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	0.0607	0.0498	0.1066**	0.1101***	0.0614*	0.2592***
x Host Country: Australia	(0.0376)	(0.0401)	(0.0446)	(0.0322)	(0.0319)	(0.0375)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	0.062*	0.1082***	0.0015	-0.0543*	-0.1129***	0.1742***
x Host Country: Canada	(0.0371)	(0.0396)	(0.0439)	(0.0317)	(0.0315)	(0.037)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	-0.0867**	-0.0232	-0.1183**	-0.1248***	-0.1259***	0.0166
x Host Country: Denmark	(0.0409)	(0.0436)	(0.0484)	(0.0349)	(0.0346)	(0.0408)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	0.0375	0.0495	0.0735*	0.0091	0.0007	0.1276***
x Host Country: Germany	(0.0375)	(0.04)	(0.0444)	(0.032)	(0.0318)	(0.0374)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	0.0231	0.071*	-0.013	-0.0892***	-0.1052***	0.0572*
x Host Country: The Netherlands	(0.0349)	(0.0372)	(0.0413)	(0.0298)	(0.0296)	(0.0348)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	-0.0865**	-0.0941**	-0.1499***	-0.2444***	-0.2596***	-0.0661*
x Host Country: Norway	(0.0364)	(0.0388)	(0.0431)	(0.0311)	(0.0309)	(0.0363)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	-0.0167	-0.0307	-0.0099	-0.0435	-0.0543	0.0655*
x Host Country: Sweden	(0.0393)	(0.0419)	(0.0466)	(0.0336)	(0.0333)	(0.0392)
ln $Immigrants_{ijt}$ x ln $Cultural\ Distance_{ij}$	0.0861**	0.1468***	-0.0154	-0.0362	-0.0728**	0.2222***
x Host Country: United States	(0.0352)	(0.0376)	(0.0417)	(0.0301)	(0.0299)	(0.0352)
ln $Cultural\ Distance_{ij}$	-0.7758***	-1.2148***	-0.6172**	-0.1655	-0.1035	-1.235***
	(0.2313)	(0.2467)	(0.2739)	(0.1978)	(0.196)	(0.2308)
Δ ln $Exchange\ Rate_{ijt}$	0.4108***	0.5933***	0.4469***	-0.342***	-0.1892	-0.6029***
	(0.1434)	(0.153)	(0.1697)	(0.1227)	(0.1216)	(0.1432)
ln $Geodesic\ Distance_{ij}$	-0.3989***	-0.5593***	-0.0796	-0.4641***	-0.4411***	-0.6899***
	(0.042)	(0.0448)	(0.0497)	(0.0359)	(0.0356)	(0.0419)

ln GDP_{jt}	0.8615***	0.9671***	0.8558***	0.6104***	0.5983***	0.6428***
	(0.0562)	(0.06)	(0.0665)	(0.0481)	(0.0476)	(0.0561)
ln Trade $Openness_{jt}$	0.3635***	0.9783***	-0.0275	0.047	0.0584	0.1078
	(0.0727)	(0.0776)	(0.0861)	(0.0622)	(0.0616)	(0.0726)
ln $Population_{jt}$	0.0631*	0.119***	-0.0801**	0.0546*	0.0484*	0.029
	(0.034)	(0.0363)	(0.0403)	(0.0291)	(0.0288)	(0.034)
ln Economic $Remoteness_{jt}$	-0.078	-0.1452***	0.1274**	-0.1688***	-0.2011***	-0.1421***
	(0.0492)	(0.0525)	(0.0582)	(0.0421)	(0.0417)	(0.0491)
Shared $Border_{ij}$	0.7473***	0.4321**	1.2788***	0.8551***	0.7551***	0.9957***
	(0.1621)	(0.1729)	(0.1918)	(0.1386)	(0.1373)	(0.1617)
Common $Language_{ij}$	0.2724***	0.195**	0.3915***	0.3032***	0.4306***	0.2664***
	(0.0783)	(0.0835)	(0.0927)	(0.0669)	(0.0663)	(0.0781)
FTA_{ijt}	0.2273**	0.2436**	0.4192***	0.2241***	0.1524**	0.4639***
	(0.09)	(0.096)	(0.1065)	(0.077)	(0.0763)	(0.0898)
$OPEC_j$	-0.2795**	-2.2475***	0.9305***	-0.1036	-0.2759***	0.3211**
	(0.1267)	(0.1352)	(0.15)	(0.1084)	(0.1074)	(0.1264)
$Seaport_j$	0.9291***	1.0264***	1.2957***	0.7254***	0.6387***	0.9805***
	(0.0813)	(0.0867)	(0.0964)	(0.0695)	(0.0689)	(0.0811)
Constant	-7.1652***	-8.765***	-11.9943***	0.3432	0.6089	0.2197
	(1.7233)	(1.8382)	(2.0398)	(1.474)	(1.4605)	(1.7191)
N	3,618	3,618	3,618	3,618	3,618	3,618
Pseudo-R^2	0.25	0.26	0.19	0.27	0.28	0.22
Adjusted R^2	0.73	0.68	0.67	0.74	0.73	0.65
Log-likelihood	-6 984	-7 207	-7 551	-6 433	-6 399	-6 973
LR Statistic	4.606***	5.008***	3.506***	4.758***	5.098***	4.005***

Coefficients on dummy variables representing years and host countries not reported. Statistical significance is denoted as follows: "***", "**", and "*" indicate significance from zero at the 1%, 5%, and 10% levels, respectively.

Table 4. Proportional Immigrant Effects, Imports

	Average	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Aggregate Imports	0.2195	0.2714***	0.2727***	0.124***	0.2482***	0.2107***	0.2338***	0.1242***	0.194***	0.2968***
	(0.0627)	(7.29)	(7.4)	(3.29)	(6.84)	(8.17)	(7.61)	(4.8)	(5.2)	(8.38)
Manufactured Products	0.2528	0.2718***	0.3302***	0.1988***	0.2715***	0.222***	0.293***	0.1279***	0.1913***	0.3688***
	(0.075)	(6.84)	(8.4)	(4.94)	(7.01)	(8.07)	(8.94)	(4.63)	(4.81)	(9.76)
Non-Manufactured Products	0.2619	0.3824***	0.2773***	0.1575***	0.3493***	0.2758***	0.2628***	0.1259***	0.2659***	0.2604***
	(0.0806)	(8.65)	(6.36)	(3.52)	(8.13)	(9.01)	(7.22)	(4.11)	(6.01)	(6.21)
SITC-0: Food and Live Animals	0.3557	0.4955***	0.4213***	0.2909***	0.4666***	0.3661***	0.4033***	0.128***	0.3186***	0.3108***
	(0.1107)	(10.37)	(8.96)	(6.03)	(10.08)	(11.09)	(10.27)	(3.88)	(6.68)	(6.87)
SITC-1: Beverages and Tobacco	0.2439	0.339***	0.3934***	0.0489	0.3881***	0.4678***	0.3533***	-0.138***	0.125**	0.2669***
	(0.2204)	(5.3)	(6.3)	(0.75)	(6.33)	(10.37)	(6.75)	(3.04)	(1.96)	(4.45)
SITC-2: Crude Materials, Inedible, Except Fuels	0.2512	0.3723***	0.3106***	0.1918***	0.3088***	0.2485***	0.2877***	0.0514	0.2581***	0.2831***
	(0.1064)	(6.94)	(5.93)	(3.57)	(6.0)	(6.77)	(6.59)	(1.4)	(4.84)	(5.63)
SITC-3: Mineral Fuels, Lubricants and Related Materials	0.2321	0.3217***	0.3131***	-0.1546	0.434***	0.2938***	0.2685***	0.0397	0.1178	0.4582***
	(0.1848)	(2.71)	(2.88)	(1.3)	(4.17)	(3.77)	(2.97)	(0.48)	(1.04)	(4.48)
SITC-4: Animal and Vegetable Oils, Fats and Waxes	0.5249	0.653***	0.7506***	0.4037***	0.6875***	0.4097***	0.5931***	0.2747***	0.4101***	0.542***
	(0.1591)	(7.57)	(9.41)	(4.47)	(9.07)	(7.00)	(9.06)	(4.64)	(4.78)	(7.21)
SITC-5: Chemicals and Related Products, n.e.s.	0.2017	0.3083***	0.3147***	0.0546	0.2712***	0.2002***	0.3065***	0.0346	0.0916*	0.3228***
	(0.1361)	(6.29)	(6.55)	(1.1)	(5.75)	(5.89)	(7.65)	(1.02)	(1.86)	(7.0)
SITC-6: Manufactured Goods Classified by Material	0.2229	0.3027***	0.3044***	0.1564***	0.2195***	0.1435***	0.2709***	0.1194***	0.196***	0.2935***
	(0.0729)	(6.64)	(6.76)	(3.38)	(4.95)	(4.56)	(7.2)	(3.77)	(4.29)	(6.77)
SITC-7: Machinery and Transport Equipment	0.2538	0.2467***	0.3773***	0.1592***	0.2584***	0.2501***	0.3267***	0.0944***	0.2589***	0.3125***
	(0.0855)	(5.49)	(8.5)	(3.49)	(5.91)	(8.04)	(8.82)	(3.02)	(5.76)	(7.32)

	Average	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
SITC-8: Miscellaneous Manufactured Articles	0.3415	0.2664***	0.4272***	0.348***	0.4217***	0.2915***	0.4131***	0.1341***	0.2879***	0.4832***
	(0.1078)	(5.99)	(9.74)	(7.74)	(9.76)	(9.50)	(11.29)	(4.35)	(6.48)	(11.45)
SITC-9: Commodities and Transactions, n.e.c.	0.1148	0.0593	0.2581***	0.1838***	0.0201	0.2469***	0.1846***	0.2017***	0.2858***	0.2441***
	(0.1798)	(0.98)	(4.48)	(3.12)	(0.35)	(5.95)	(3.81)	(4.93)	(4.72)	(4.41)

Statistical significance is denoted as follows: "**". "*". and "#" indicate significance from zero at the 1%. 5%. and 10% levels. respectively. Bold (italicized) font indicates corresponding effect is greater (less) than the average effect listed in leftmost column. Values presented in parentheses below average effects are standard deviations. Values presented below proportional immigrant effects are z-statistics. Z-statistics are constructed as

$$Z = \frac{\hat{\beta}_{CD} + \hat{\beta}_{INTER}}{VAR(\hat{\beta}_{CD}) + VAR(\hat{\beta}_{INTER}) + 2 \times COVAR(\hat{\beta}_{CD}, \hat{\beta}_{INTER})}$$

Table 5. Proportional Immigrant Effects. Exports

	Average	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Aggregate Exports	0.1917	0.3544***	0.19***	0.1195***	0.2534***	0.2443***	0.1551***	-0.0001	0.2008***	0.2081***
	(0.0979)	(11.12)	(6.03)	(3.7)	(8.16)	(11.05)	(5.9)	(0.0)	(6.3)	(6.86)
Manufactured Products	0.1922	0.3287***	0.1544***	0.1414***	0.268***	0.2673***	0.1621***	0.0077	0.213***	0.1945***
	(0.0951)	(10.41)	(4.94)	(4.42)	(8.71)	(12.21)	(6.22)	(0.35)	(6.74)	(6.48)
Non-Manufactured Products	0.2406	0.4046***	0.3196***	0.162***	0.273***	0.1454***	0.2026***	0.0793***	0.2109***	0.3676***
	(0.1083)	(10.88)	(8.69)	(4.3)	(7.55)	(5.66)	(6.6)	(3.07)	(5.67)	(10.4)
SITC-0: Food and Live Animals	0.2102	0.383***	0.3037***	0.1204***	0.2253***	0.1322***	0.1732***	0.0634**	0.1371***	0.3535***
	(0.1128)	(9.13)	(7.33)	(2.84)	(5.53)	(4.56)	(5.01)	(2.18)	(3.26)	(8.87)
SITC-1: Beverages and Tobacco	0.2440	0.0673	0.4375***	0.1048**	0.3267***	0.3782***	0.2054***	0.012	0.2495***	0.4942***
	(0.182)	(1.27)	(8.48)	(2.0)	(6.54)	(10.51)	(4.85)	(0.31)	(4.81)	(10.13)
SITC-2: Crude Materials. Inedible. Except Fuels	0.3185	0.5893***	0.3735***	0.2937***	0.3742***	0.1737***	0.2534***	0.1539***	0.3101***	0.3445***
	(0.129)	(13.56)	(8.75)	(6.7)	(8.9)	(5.79)	(7.12)	(5.1)	(7.17)	(8.39)
SITC-3: Mineral Fuels. Lubricants and Related Materials	0.4578	0.6726***	0.6087***	0.394***	0.6208***	0.3594***	0.4052***	0.1274***	0.4111***	0.5209***
	(0.1686)	(9.4)	(8.88)	(5.51)	(9.4)	(7.44)	(7.24)	(2.62)	(5.96)	(8.05)
SITC-4: Animal and Vegetable Oils. Fats and Waxes	0.3637	0.6822***	0.6532***	0.2066***	0.4613***	0.1731***	0.3304***	0.0417	0.2356***	0.5309***
	(0.2328)	(10.59)	(10.49)	(3.35)	(8.0)	(4.11)	(6.76)	(0.93)	(3.85)	(9.37)
SITC-5: Chemicals and Related Products. n.e.s.	0.2241	0.2953***	0.317***	0.2079***	0.3169***	0.2602***	0.2254***	0.0285	0.1762***	0.2184***
	(0.0977)	(4.32)	(4.66)	(3.04)	(4.68)	(11.12)	(3.44)	(0.45)	(2.58)	(3.24)
SITC-6: Manufactured Goods Classified by Material	0.2202	0.2894***	0.2535***	0.1198***	0.3332***	0.2485***	0.2081***	0.044*	0.2488***	0.2369***
	(0.0879)	(8.38)	(7.44)	(3.43)	(9.93)	(10.40)	(7.31)	(1.84)	(7.21)	(7.22)
SITC-7: Machinery and Transport Equipment	0.1844	0.2473***	0.1337***	0.1766***	0.2572***	0.2654***	0.153***	0.0222	0.2469***	0.1798***
	(0.0847)	(7.78)	(4.26)	(5.49)	(8.32)	(12.06)	(5.83)	(1.01)	(7.77)	(5.95)

	Average	Australia	Canada	Denmark	Germany	Italy	Netherlands	Norway	Sweden	US
SITC-8: Miscellaneous Manufactured Articles	0.2194	0.2997***	0.2498***	0.1445***	0.3216***	0.2528***	0.1872***	0.0376*	0.2228***	0.2584***
	(0.0867)	(9.87)	(8.33)	(4.71)	(10.9)	(12.04)	(7.48)	(1.78)	(7.34)	(8.96)
SITC-9: Commodities and Transactions. n.e.c.	0.1907	0.4247***	0.1573***	0.1363***	0.2099***	0.3034***	0.1268***	0.01	0.1658***	0.1921***
	(0.1188)	(10.25)	(3.84)	(3.25)	(5.21)	(10.53)	(3.71)	(0.35)	(4.0)	(4.88)

Table 6. Simpson's Diversity Indexes by Host Country and Year

	Average (a)	Australia (b)	Canada (c)	Denmark (d)	Germany (e)	Italy (f)	Netherlands (g)	Norway (h)	Sweden (i)	US (j)
2001	14.03%	30.62%	24.96%	7.04%	13.25%	3.71%	11.32%	4.58%	14.26%	16.54%
2000	14.05%	31.70%	24.77%	6.91%	13.18%	3.58%	11.16%	4.63%	14.09%	16.44%
1999	13.63%	31.45%	25.10%	6.79%	13.13%	2.89%	11.07%	4.53%	13.92%	13.81%
1998	13.75%	31.24%	24.53%	6.62%	13.11%	2.70%	10.94%	4.37%	16.56%	13.64%
1997	13.53%	31.05%	24.07%	6.45%	12.83%	2.59%	10.84%	4.38%	16.11%	13.45%
1996	13.37%	31.21%	23.99%	6.23%	12.81%	1.87%	10.83%	4.49%	15.73%	13.20%
Avg.	13.73%	31.21%***	24.57%***	6.68%***	13.05%***	2.89%***	11.03%***	4.5%***	15.11%***	14.52%

Most striking is that. in the case of Norway. of the three estimated proportional immigrant effects. only the effect on non-manufactured goods exports (0.0793) is significant and even this effect is less than one standard deviation below the corresponding mean effect.

To examine immigrant-trade links at a much greater level of detail. we decompose aggregate import and export values into 1-digit SITC sector-level values. Based on the observed variation in the magnitudes of the effects across host countries when employing aggregate. manufactured and non-manufactured goods trade values as dependent variables. we expect to find similar variation from disaggregated measures of trade as well. Corresponding proportional immigrant effects are reported in Tables 4 and 5. The estimated immigrant-trade links are consistent across measures of trade. yet variable across the host countries. We consider this as evidence of the robustness of our general results. Australia. Canada. Germany and the US are the host countries where. consistently. above-average proportional immigrant-trade effects are estimated. Denmark. Norway and Sweden tend to have below-average proportional immigrant-trade effects. while effects for Italy and the Netherlands are more mixed.

As changes in socio-cultural values are often gradual. we assume that host-home country cultural distance does not vary during our reference period when estimating the proportional influences of hypothetical one percent increases in immigrant stocks on host-home country trade flows. Assuming. instead. immigrant stocks remain constant and allowing hypothetical one percent increases in cultural distances permits the determination of the relative effects of cultural distance on trade. Comparing proportional cultural distance effects to the proportional immigrant-import effects (presented in Table 4). we find that in 91 cases both effects are significant and. in such instances. the cultural distance effect exceeds the immigrant-import effect by an average factor of 6.13. In only one case (US imports of SITC-1 products) is the cultural distance effect (-0.1726) less than the corresponding immigrant-export effect (0.2669). Comparison of proportional cultural distance effects to immigrant-export effects (presented in Table 5) reveals that in only one of the 68 instances in which both the cultural distance and immigrant-export effects are significant (Australian exports of manufactured products) is the immigrant-export effect (0.3287) greater than the cultural distance effect (-0.0421). Across all 68 cases. the average cultural distance effect-to-immigrant-export effect ratio is 5.8. Thus. we conclude the trade-inhibiting influence of cultural distance far exceeds the trade-enhancing effects of immigrants.

The results presented thus far address the first two of our three principal questions. We find greater cultural distance between countries does hinder trade. However. immigrants offset. at least in part. the trade-inhibiting influences of cultural distance. These pro-trade immigrant effects vary across product types and economic sectors and. more importantly. across host countries that differ to the extent which their populations are culturally diverse. This brings us to our third question: does cultural diversity within the immigrants' host countries affect the abilities of immigrants' to increase trade? To address this question. we calculate annual values. for each host country. of the Simpson's Index of Diversity. These values. along with host country-specific average values. are presented in Table 6.

Simpson's Indexes of Diversity is calculated as $1-\frac{\sum n_{ij}(n_{ij}-1)}{N_i(N_i-1)}$. where n_{ij} is the total number of individuals born in a particular country. inclusive of immigrants and the native-born. N_i is the total population of host country i. Simpson's Index of Diversity ranges in value

from 0 to 1. with higher values indicating greater diversity. The index effectively reflects the probability that two randomly selected individuals are from different countries.

The coefficients summarized in Tables 4 and 5 represent the expected proportional responses of imports and exports. respectively. to a small (i.e.. one percent) proportional increase in the immigrant stock variable. By comparing average Simpson's Index values to the estimated proportional effects of immigrants on trade that are presented in Table 4 and 5. we can determine whether greater cultural diversity in the immigrants' host country corresponds with immigrants' influences on trade that are of greater or lesser magnitude. Beginning with immigrants' proportional influences on host country imports. the correlation coefficient between the average Simpson's Index values and the estimated immigrant-import effects reported in Table 4 is equal to 0.33. The corresponding correlation coefficient between the average Simpson's Index values and the immigrant-export effects (reported in Table 5) is equal to 0.49. In both cases. the coefficients are statistically significant. Thus. we can say that greater host country cultural diversity is positively related to immigrant-import and immigrant-export effects[12]

These findings are not entirely surprising when one glimpses the values in Tables 4 and 5. A consistent pattern emerges regarding the magnitudes for the immigrant-trade effects. The values indicate that the populations of Australia. Canada and Sweden are significantly more culturally diverse than are the remaining host countries; however. since the US is not significantly different from the cohort-average. it is significantly more diverse than Denmark. Germany. Italy. the Netherlands or Norway.

Revisiting Table 4. we see estimated immigrant-import effects for Australia. Canada. Sweden and the US exceed the corresponding cohort-averages in 38 of 52 instances (73.1%). while estimated immigrant-export effects for the remaining host countries exceed the corresponding cohort averages in 31 of 65 instances (47.7%). Performing the same accounting for the values in Table 5. we see that the estimated immigrant-export effects for the four most culturally-diverse host countries are above-average for 71.1 percent of the cases. while the immigrant-export effects in the remaining hosts are above-average in only 33.8 percent of cases.

The results suggest that cultural diversity within the immigrants' host countries fosters the creation of trade-between immigrants host and home countries; however. the inference that it enhances immigrants' abilities to affect trade is not entirely straightforward. Sweden. for example. is one anomaly. Estimated to have the third most culturally-diverse population among the nine hosts considered. the immigrant-trade effects for Sweden are below average in 18 of 26 instances.

For Australia and Canada. estimated effects exceed the corresponding averages in 22 of 26 cases. while 23 of 26 estimated effects for the US are above-average. Germany. on the other hand. is estimated to be relatively less culturally-diverse. yet in 24 of 26 instances the corresponding immigrant-trade effect exceeds the cohort average. Results for Denmark and Norway. however. are very much in line with the general finding of a positive relationship between host country diversity and greater proportional immigrant-trade links.

[12] Both correlation coefficients are significant from zero at the 1% level.

CONCLUSION

In an attempt to gain a deeper understanding of how immigrants affect host-home country trade flows. we have examined the relationship between immigrants. cultural distance and trade for a group of culturally and economically heterogeneous host countries. Our analysis extends the related literature. informs the public and political discussions of immigration and. potentially. provides information beneficial in the formulation of public policy. Our results indicate that immigrants. generally speaking. appear to increase both host country imports from and exports to their respective home countries. However. considerable variation is observed across host countries in terms of pro-trade effects. For example. the magnitudes of immigrant-trade links for Denmark and Norway – both of which have fewer immigrants than other host economies considered in this study – are generally positive but also tend to be below-average when compared to the remaining host economies in our sample. Australia. Canada. Germany (with immigrant populations of typical size relative to the full sample of host countries) and the US (with the largest number of immigrants). on the other hands. frequently are estimated to have immigrant-trade links that are above-average in magnitude.

We also report that greater cultural difference between host countries and home countries inhibits both host country imports and exports. with imports seemingly affected to a greater extent. This is consistent with the notion that greater cultural differences between societies complicate interactions. hinder the development of rapport and trust and. thus. act to inhibit trade flows. Greater cultural diversity of the host countries' populations. on the other hand. corresponds with increased magnitudes and incidence of statistically significant immigrant-export and immigrant-import effects. This suggests that where populations are more diverse. there may be increased likelihoods that the native-born populations and immigrants from other countries are more tolerant of distinct cultures and more open to altering their consumption. partaking in products from a given immigrant groups' home country. It also may indicate that greater diversity correlates with a higher probability that the host country will afford immigrants the opportunities that allow them to reduce trade-related transaction costs.

That immigrants increase trade flows by exploiting superior information regarding host country markets (relative to their home country counterparts) and home country markets (relative to their host country counterparts). while cultural differences inhibit trade flows implies that immigrants play greater roles in facilitating international flows than is usually discussed in the literature: fully or partially offsetting the influences of lack of trust and commitments that correspond to cultural differences between potential trading partners; thus. initiating trade and facilitating transactions.

APPENDIX: COUNTRY LISTING

Albania. Algeria. Argentina. Armenia. Australia. Austria. Azerbaijan. Bangladesh. Belgium. Brazil. Bulgaria. Canada. Chile. China. Colombia. Croatia. Czech Republic. Denmark. Dominican Republic. Egypt. El Salvador. Estonia. Finland. France. Germany. Greece. Hungary. Iceland. India. Indonesia. Ireland. Israel. Italy. Japan. Jordan. Korea. Latvia. Luxembourg. Macedonia. Mexico. Morocco. Netherlands. New Zealand. Nigeria.

Norway. Pakistan. Peru. Philippines. Poland. Portugal. Romania. Russian Federation. Slovak Republic. Slovenia. South Africa. Spain. Sweden. Switzerland. Tanzania. Turkey. Uganda. Ukraine. United Kingdom. United States. Uruguay. Venezuela. Vietnam. Zimbabwe.

APPENDIX: IMMIGRANT STOCK DATA AND ESTIMATE CONSTRUCTION

Host	Stock data available	Inflow data available	Source
Australia	1996, 2001	1996-2001	Australian Bureau of Statistics
Canada	1996, 2001	1996-2001	Statistics Canada
Denmark	1996-2001	n.a.	Danmarks Statistik
Germany	1996-2001	n.a.	Statistiches Bundesamt
Italy	1996-2001	n.a.	Istituto Nazionale di Statistica
The Netherlands	1996-2001	n.a.	Centraal Bureau voor de Statistiek
Norway	1996-2001	n.a.	Statistisk Sentralbyrå
Sweden	1990, 1999-2001	1990-1999	Statistiska Centralbyrån
USA	1996-2001	n.a.	US Census Bureau

Due to a lack of available data for immigrant stock values. it is necessary to estimate immigrant stock values for the years 1997-2000. for Australia and Canada. and for the years 1996-1998 for Sweden. Available immigrant stock values are accepted as correct and are employed as benchmark values. We then use inflow data to estimate immigrant stocks for all other years. For example. immigrant stocks for Australia. for the years 1997-2000. are constructed as $IM_{ijt} = IM_{ij1996} + \sum_{1997}^{t} IN_{ijt} + \rho_j$. IN_{ijt} is the immigrant inflow from home country j to host country i (in this case. Australia) during year t. ρ_j is an adjustment factor accounting for return migration and deaths of immigrants during non-benchmark years. The adjustment factor is the immigrant stock from home country j in Australia during 2001 less the sum of immigrants from country j in Australia in 1996 and the inflow from country j during the years 1997-2001 divided by five: $\rho_j = \frac{IM_{ij2001} - \left(IM_{ij1996} + \sum_{t=1997}^{2001} IN_{ijt} \right)}{5}$. For Canada and Sweden. immigrant stock variables are estimated similarly.

REFERENCES

Anderson. J.E. and E. van Wincoop (2003) “Gravity with Gravitas: A Solution to the Border Puzzle.” *American Economic Review* 93. 1: 190-192.

Bandyopadhyay. S.. C.C. Coughlin and H.J. Wall. (2006) “Ethnic Networks and US Exports.” Federal Reserve Bank of St. Louis WP#2005-069A. January.

Bardhan. A.D. and S. Guhathakurta. (2005) “Global Linkages of Subnational Regions: Coastal Exports and International Networks.” *Contemporary Economic Policy* 22. 2: 225-236.

Blanes. J.V. (2006) "Immigrant’s Characteristics and their different effects on bilateral trade. Evidence from Spain." WP#06.08. Universidad Pablo de Olavide. Departamento de Economía.

_____ (2004) "Does Immigration Help to Explain Intra-Industry Trade? Evidence for Spain." Economic Working Papers at Centro de Estudios Andaluces E2004/29. Centro de Estudios Andaluces.

_____ (2003) “The Link Between Immigration and Trade in Spain.” Universidad Pablo de Olavide. Presented at XXVIII Simposio de Analisis Economico. 11-13 December. Seville.

_____ and J.A. Martín-Montaner (2006) "Migration Flows and Intra-Industry Trade Adjustments." *Review of World Economics* 127. 3: 567-584. October.

Bryant. J.. M. Genc and D. Law. (2004) “Trade and Migration to New Zealand.” New Zealand Treasury WP#04/18. Wellington. New Zealand.

Ching. H.S. and L. Chen (2000) “Links between Emigrants and the Home Country: the Case of Trade between Taiwan and China.” in *Regional Cohesion and Competition in the Age of Globalization.* edited by H. Kohno. P. Nijkamp and J. Poot. Cheltenham UK: Edward Elgar.

Co. C.Y.. P. Euzent and T. Martin (2004) “The Export Effect of Immigration into the USA.” *Applied Economics* 36. 6: 573-583.

Combes. P.. M. Lafourcade and T. Mayer (2005) “The Trade Creating Effects of Business and Social Networks: Evidence from France.” *Journal of International Economics* 66: 1-29.

Dunlevy. J.A. (2006) “The Impact of Corruption and Language on the Pro-Trade Effect of Immigrants: Evidence from the American States.” *Review of Economics and Statistics* 88. 1.

Eaton. J. and A. Tamura (1994) “Bilateralism and Regionalism in Japanese and U.S. Trade and Foreign Direct Investment Patterns.” *Journal of the Japanese and International Economies* 8. 478-510.

Feenstra. R.C.. J. Markusen and A. Rose (2001) “Using the Gravity Equation to Differentiate Among Alternative Theories of Trade.” *Canadian Journal of Economics* 34. 2: 430-447.

Girma. S. and Z. Yu. (2002) “The Link Between Immigration and Trade: Evidence from the U.K..” *Weltwirtschaftliches Archive* 138: 115-130.

Gould. D.M. (1994) “Immigration Links to the Home Nation: Empirical Implications for US Bilateral Trade Flows.” *Review of Economics and Statistics* 76: 302-316.

Greenaway. D.. P.A. Mahabir and C. Milner (2007) “Does the Presence of Ethnic Chinese in Trading Partner Countries Influence Bilateral Trade Flows with China?” Leverhulme Centre for Research in Globalisation and Economic Policy. University of Nottingham Working Paper.

Hagenaars. J.A.. L. Halman and G. Moors (2003) “Exploring Europe's Basic Values Map.” in Wil Arts. Jacques Hagenaars and Loek Halman et al.. eds.. *The Cultural Diversity of European Unity.* Boston. MA. Koninklijke Brill.

Head. K. and T. Mayer (2000) “Non-Europe: The Magnitude and Causes of Market Fragmentation in Europe.” *Weltwirtschaftliches Archive*. 136. 2: 285-314.

Head. K. and J. Ries. (1998) “Immigration and Trade Creation: Econometric Evidence from Canada.” *Canadian Journal of Economics* 31: 47-62.

Helliwell. J.F. (1997) “National Borders. Trade and Migration.” *Pacific Economic Review* 3. 3: 165-185.

Herander. M.G. and L.A. Saavedra. (2005) “Exports and the Structure of Immigrant-Based Networks: The Role of Geographic Proximity.” *Review of Economics and Statistics* 87. 2: 323-335.

Hong. T.C. and A.S. Santhapparaj (2006) “Skilled labor immigration and external trade in Malaysia: A pooled data analysis.” *Perspectives on Global Development and Technology* 5 (4). 351-166. November.

Hutchinson. W.K. (2002) “Does Ease of Communication Increase Trade? Commonality of Language and Bilateral Trade.” *Scottish Journal of Political Economy*. 49. 5: 544-556.

Inglehart. R.. M. Basanez. J. Diez-Medrano. L. Halman and R. Luijkx. editors (2004). *Human Beliefs and Values: A Cross-cultural Sourcebook based on the 1999-2002 values surveys.* Siglo Veintiuno Editores. S.A. de C.V.: Mexico City.

Migration Policy Institute (2007) Country and Comparative Data. Washington. DC. Online. Available at: http://www.migrationinformation.org/datahub/comparative.cfm.

Mundra. K. (2005) “Immigration and International Trade: A Semiparametric Empirical Investigation.” *Journal of International Trade and Economic Development* 14. 1: 65-91.

Piperakis. A.S.. C. Milner and P.W. Wright. (2003) “Immigration. Trade Costs and Trade: Gravity Evidence for Greece.” *Journal of Economic Integration* 18: 750-62.

Rauch. J. and J. Watson (2002) “Entrepreneurship in International Trade.” National Bureau of Economic Research WP# 8708. NBER: Cambridge. MA.

Rauch. J. and V. Trindade (2002) Ethnic Chinese Networks in International Trade. *Review of Economics and Statistics* 84. 1: 116-130.

Rauch. J. (2001) “Business and Social Networks in International Trade.” *Journal of Economic Literature* 39: 1177-1203.

_____ (1999) “Networks versus Markets in International Trade.” *Journal of International Economics* 48: 7-35.

Ranjan. P. and J. Tobias (2005) “Bayes and Gravity.” Iowa State University WP# 05026. Ames. IA.

Tadesse. B. and R. White (2007) “Cultural Distance as a Determinant of Bilateral Trade Flows: Do Immigrants Counter the Effect of Cultural Differences?” *Applied Economic Letters* (Forthcoming).

Tinbergen. J. (1962) *The World Economy. Suggestions for an International Economic Policy.* New York. NY: Twentieth Century Fund.

United States Central Intelligence Agency (CIA) (2006) *CIA World Factbook.* Online. Available at: https://www.cia.gov/cia/publications/factbook/index.html.

Wagner. D.. K. Head and J. Ries. (2002) “Immigration and the Trade of Provinces.” *Scottish Journal of Political Economy* 49. 5: 507-525.

White. R. (2007a) “Immigrant-Trade Links. Transplanted Home Bias and Network Effects.” *Applied Economics* 39. 7: 839-852. April.

_____ (2007b) “An Examination of the Danish Immigrant-Trade Link.” *International Migration* 45. 5

_____ (2007c) “Immigration. Trade and Product Differentiation.” *Economic Issues* 13. 2. September. (Forthcoming)

_____ (2007d) "Exploring a US Immigrant – Intra-Industry Trade Link." *Eastern Economic Journal* 34. 2. (Forthcoming)

_____ and B. Tadesse (2009) "Cultural Diversity. Immigration and International Trade: An Empirical Examination of the Relationship in OECD Nations." in *Cultural Diversity: Issues. Challenges and* Perspectives. Nova Science Publishers: Hauppauge. NY.

_____ and B. Tadesse (2007) "Immigration Policy. Cultural Pluralism and Trade: Evidence from the White Australia Policy." *Pacific Economic Review* 12. 4. October.

World Bank (2006) World Development Indicators: CD-ROM Version. Washington. DC. Development Data Group of the World Bank's International Economics Department.